

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/33583

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B29C 31/04, 31/08, 70/76

US CL : 26/51, 53; 264/229; 425/111, 126.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 26/51, 53; 264/229; 425/111, 126.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,328,548 B1 (SALAS et al) 11 December 2001 (11.12.2001), see figures 1-6; column 5, line 13 to column 6, line 56; and column 7, line 19 to column 8, line 29.	1, 16, 32-34, 37-40, 43
A	RD 419043 A (ANONYMOUS) 20 February 1999 (20.02.1999), see entire document.	24-31
A	US 6,167,603 B1 (ZEILER et al) 02 January 2001 (02.01.2001), see figures 1-9 and column 2, lines 31-41.	1-52
A	US 5,679,301 A (MIKLAS et al) 21 October 1997 (21.10.1997), see figures 1-3.	1-52
A	US 5,235,908 A (FROELICHER et al) 17 August 1993 (17.08.1993), see figures 1-4.	1-52
A	US 3,391,635 A (MATHEUS) 09 July 1968 (09.07.1968), see figures 1-5.	1-52
A	US 3,482,343 A (HAMU) 09 December 1969 (09.12.1969), see figures 1-5.	1-52
A	US 4,442,772 A (BUBLEY) 17 April 1984 (17.04.1984), see figures 1-3.	1-52
A	US 5,271,171 A (SMITH) 21 December 1993 (21.12.1993), see figures 1-8.	1-52



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

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document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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Date of the actual completion of the international search

27 June 2005 (27.06.2005)

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